



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,054	05/26/2006	Rainer Breitenbach	INA-40	1220
20311 7590 09/17/2009 LUCAS & MERCANTI, LLP 475 PARK AVENUE SOUTH 15TH FLOOR NEW YORK, NY 10016				
EXAMINER GARCIA, ERNESTO				
ART UNIT 3679		PAPER NUMBER		
NOTIFICATION DATE 09/17/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@lmiplaw.com

Office Action Summary

Application No.

10/596,054

Applicant(s)

BREITENBACH ET AL.

Examiner

ERNESTO GARCIA

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submissions, filed on July 7, 2009 and August 4, 2009, have been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Restriction

Claims 1-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 27, 2008.

Drawings

The drawings were received on July 7, 2009. These drawings are accepted.

Claim Objections

Claims 15 and 19 are objected to because of the following informalities:

regarding claim 15, --the-- should be inserted before "undercut" in line 4; and,

regarding claim 19, "so as to connect" in line 4 should be --connecting--.

Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, the metes and bound of the claim is unclear. In particular, how does the recitation "undercut is open when in a final mounting position of the nut on the bolt holding the flange on the drive element" in lines 4-5 further limit the screwed joint. Is the undercut only open "when" in a final mounting position? It seems that the

undercut is open regardless since the undercut is a groove. Further, how does the recitation “the undercut being adapted to be engageable axially from behind by clamping elements of an assembly tool and kept spaced in relation to the flange during screwing together of the joint” in lines 7-9 further limiting the screwed joint. Are the clamping elements of an assembly tool being claimed as a part of the joint?

Claim Rejections - 35 USC § 102

Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelsen et al., GB-2,301,548.

Regarding claim 15, as best understood, Nelsen et al. disclose, in Figure 5, a screwed joint comprising a flange **14**, a drive element **10'**, a nut **46**, and a bolt **22**. The bolt **22** is on the drive element **10'**. The drive element **10'** and the flange **14** are screwed together at least by the nut **46** and the bolt **22**. The nut **46** has an undercut **A1** (the groove; see marked-up attachment) at least on a portion of the nut **46** from a direction of the flange **14**. The portion is spaced axially in relation to the flange **14**. The undercut **A1** (the groove; see marked-up attachment provided in the last Office action) has a radial wall **A2** (every groove inherently has a radial wall) facing the flange **14**. The undercut **A1** is open (note that if the undercut **A1** were not open, the undercut would not be a groove). The nut **46** is extended axially by a shank **A3**.

It should be noted that the undercut can be adapted to be able to be engaged axially from behind by clamping elements of an assembly tool and kept spaced in relation to the flange during screwing together of the joint.

Regarding claim 16, the undercut **A1** is at least one radial recess **A1**.

Regarding claim 17, the radial recess **A1** is at least one annular groove **A1**.

Regarding claim 18, the bolt **22** has an external thread. The nut **46** has an internal thread corresponding to the external thread (page 5, 2-4). The annular groove **A1** is on an outer side facing away radially from the internal thread (the groove is on the outside of the internal thread).

Claims 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hetmann et al., 3,635,303.

Regarding claim 15, as best understood, Hetmann et al. disclose, in Figure 2, a screwed joint comprising a flange **67**, a drive element **54**, a nut **57**, and a bolt (threaded portion where nut is threaded). The bolt is on the drive element **54**. The drive element **54** and the flange **67** are screwed together at least by the nut **57** and the bolt. The nut **57** has an undercut **58** at least on a portion of the nut **57** from a direction of the flange **67**. The portion is spaced axially in relation to the flange **43**. The undercut **58** has a

Art Unit: 3679

radial wall (every groove has two radial walls) facing the flange 67. The undercut 58 is open. The nut 57 is extended axially by a shank A1 (see marked-up attachment provided in the last Office action).

It should be noted that the undercut can be adapted to be able to be engaged axially from behind by clamping elements of an assembly tool and kept spaced in relation to the flange during screwing together of the joint.

Regarding claim 16, the undercut 58 is at least one radial recess 58.

Regarding claim 17, the radial recess 58 is at least one annular groove 58 (col. 4, line 6-8).

Regarding claim 18, the bolt has an external thread. The nut 57 has an internal thread corresponding to the external thread. The annular groove 58 is on an outer side facing away radially from the internal thread.

Regarding claim 19, Hetmann et al. disclose, in Figure 2, a screw joint comprising a drive element 55, a flange 43, and a nut 57. The drive element 55 has an integral bolt 54. The nut 57 is threaded to the bolt 54 connecting the drive element 55 and the flange 43. The nut 57 has an undercut 58 on a portion of the nut 57 from a direction of the flange 43. The undercut 58 has a radial wall facing the flange 57. The

Art Unit: 3679

nut further has an axially extending shank **A1** (see marked-up attachment provided in the last Office action) that is axially within the flange **43**. The shank **A1** has an internal thread threaded on the bolt **54**.

Claims 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato, 5,651,588.

Regarding claim 15, as best understood, Kato discloses, in Figure 1, a screwed joint comprising a flange **20**, a drive element **24**, a nut **26**, and a bolt **24a**. The bolt **24a** is on the drive element **24**. The drive element **24** and the flange **20** are screwed together at least by the nut **26** and the bolt **24a**. The nut **26** has an undercut **A1** (see marked-up attachment) at least on a portion of the nut **26** from a direction of the flange **20**. The portion is spaced axially in relation to the flange **20**. The undercut **A1** has a radial wall **A2** (every groove has two radial walls) facing the flange **20**. The undercut **A1** is open. The nut **26** is extended axially by a shank **A3**.

It should be noted that the undercut can be adapted to be able to be engaged axially from behind by clamping elements of an assembly tool and kept spaced in relation to the flange during screwing together of the joint.

Regarding claim 16, the undercut **A1** is at least one radial recess **A1**.

Regarding claim 17, the radial recess **A1** is at least one annular groove **A1**.

Regarding claim 18, the bolt **24a** has an external thread (it is known that bolts inherently have an external thread to connect to the nut). The nut **26** has an internal thread corresponding to the external thread. The annular groove **A1** is on an outer side facing away radially from the internal thread.

Regarding claim 19, Kato discloses, in Figure 1, a screw joint comprising a drive element **24**, a flange **20**, and a nut **26**. The drive element **24** has an integral bolt **24a**. The nut **26** is threaded to the bolt **24a** connecting the drive element **24** and the flange **20**. The nut **26** has an undercut **A1** (see marked-up attachment) on a portion of the nut **26** from a direction of the flange **20**. The undercut **A1** has a radial wall **A2** facing the flange **20**. The nut **26** further has an axially extending shank **A3** that is axially within the flange **20**. The shank **24a** has an internal thread threaded on the bolt **24a** (note that nuts are known to have an internal thread to connect to a bolt that inherently has a thread).

Response to Arguments

With respect to Nelsen et al., the applicants argue that the groove is not accessible for clamping element of an installation tool. In response, it should be first note that patentability is based on the structural differences and not what the device is

intended to be used or how the device operates. Further, the rejected claims are not directed to a method of installation and thus the argument is not commensurate with the scope of the screwed joint as claimed.

With respect to Hetmann et al., applicants argue that the reference does not disclose an undercut which is open in a final mounting position holding the flange on the bolt. This has not been found persuasive. In particular, note the 35 USC 112, 2nd rejections. It should be noted that the undercut, i.e., the groove, is inherently open thus constituting an annular groove otherwise it would not be a groove but some closed channel. With respect to claim 19, applicant argues that the shank A1 does not extend axially within the flange. In response, the examiner has reconsidered another component to be the flange and thus now the shank extends axially within the flange as argued.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. G./

Examiner, Art Unit 3679

September 15, 2009

Attachment: one marked-up page of Kato, 5,651,588

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679

